

The Water and Sewer Department exists to provide quality, reliable, customer-convenient water and sewer service to the citizens of Wichita.

Overview

The Water and Sewer Department supplies and distributes high quality water, and collects and treats wastewater for the City of Wichita. Services provided include pumping and purifying water, maintaining the water distribution and wastewater collection systems, treating wastewater and planning for future needs.

The Water Utility produces, treats, and distributes approximately 20 billion gallons of water per year on average for its customers. Due to the hot, dry summer of 2001, the Utility delivered a record 22.5 billion gallons of water to customers. The Sewer Utility collects and treats approximately 15 billion gallons per year from its customers. Service levels and water consumption in particular, are driven primarily by system growth rates as well as weather conditions that affect consumption patterns. Despite the large volume of water produced and sewage treated, the Water & Sewer Utilities consistently exceed environmental regulations, often before such regulations are put into effect. This proactive approach assists in planning and helps to ensure that Utility customers receive excellent service value.

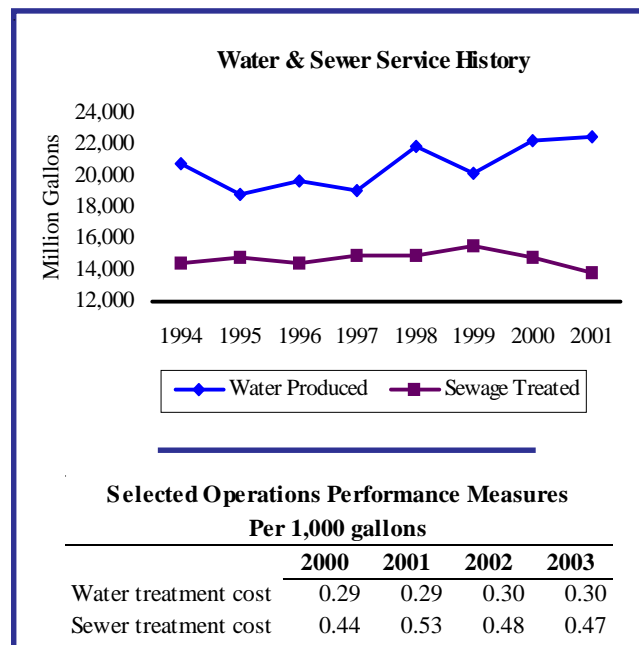


The water treatment plant at Sim Park.

Finance and Operations

The **Production and Pumping Division** procures, treats and pumps water from Cheney Reservoir and the City's local supply wells near Halstead. This activity ensures that adequate water supply and pressure is available to citizens when needed. Costs associated with the collection, treatment and pumping of water,

including electricity, chemical costs and infrastructure improvements, represent the largest single category of operations and maintenance expenditures in the Water Utility budget.



In accordance with State law and the comprehensive Water Supply Plan, the Utility has sought to reduce the amount of water required from groundwater sources (wells) in an attempt to minimize impacts on groundwater levels. In addition, the Utility is implementing the Aquifer Storage and Recovery (ASR) project, designed to withdraw excess rainfall from the Little Arkansas River during periods of wet weather. The water drawn from the river is then treated and injected into the aquifer to partially offset Utility withdrawals from the well field groundwater supply.

The ASR project will be implemented from 2002 to 2010, and will double the number of facilities in the well field. The first phase, currently being implemented, adds 17 wells, three recharge basins, 11 miles of power lines, and nine miles of water lines. Additional staffing and equipment to operate and maintain these facilities are included in the recommended budget for 2003. Additional staff and equipment will be required in 2005 and 2007 as more wells, basins, power lines, and water lines are placed into service.

The **Customer Service Division** is the primary public contact point for the Utilities. Customer Service staff read water meters and manage the billing and collection for over \$60 million in annual Utility revenues. Storm Water Utility revenues are also collected by Customer Service staff.

An integrated Call Center is recommended in the budget. The Call Center will streamline public contact with the Utility, allowing all callers with water service or billing issues to call one number. The Call Center will also streamline departmental operations by consolidating record keeping from three locations to one. Finally, information in the customer service (billing) system will be linked with data in the asset management system, so that departmental operations and engineering staff will have access to the most up-to-date customer and maintenance information. This significant increase in customer service will be accomplished without adding any personnel.

Recently the Water Utility has completed pilot tests of a relatively new technology, Automated Meter Reading (AMR). This technology allows meters to be read electronically from a distance, enabling them to be read much faster, more efficiently and with fewer errors. The 2002, 2003 and 2004 budgets include funding to continue the conversion to AMR by providing for the system's installation on all new metered services requested. As the technology continues to improve and the percentage of AMR-equipped meters increases throughout the City, meter reading errors and costs will be dramatically reduced. In the current budget cycle, AMR will allow the system to continue to expand without hiring additional meter readers, while reducing overtime for current employees. In the future, AMR will allow the Customer Service Division to serve a larger customer base with fewer employees.

The **Water Distribution** Division maintains over 1,500 miles of water mains, 28,000 valves, 8,000 fire hydrants, and 150,000 water service lines and meter sets. Over 1,200 main and service line leaks are repaired every year. An ongoing preventive maintenance and inspection effort is underway to prevent leaks and breaks before they occur and require more expensive repair or reconstruction. The recommended Water Distribution budget includes additional funds for increased levels of pavement cuts due to line breaks and for additional contractual installation of new services.

Selected Maintenance Performance Measures					
Per 1,000 Line Miles					
	1999	2000	2001	2002	2003
Water main breaks	406	610	665	550	500
Sewer stoppages	182	215	192	180	170

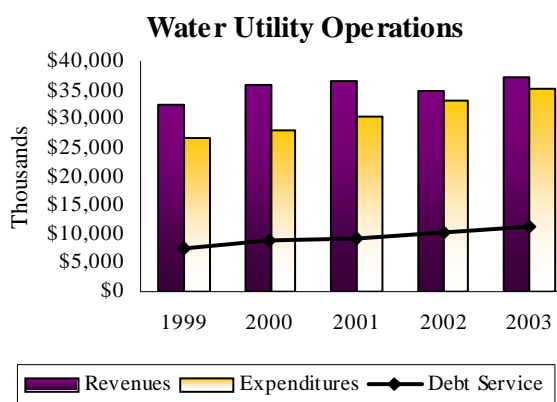
Sewage Treatment Division staff operates and maintains the treatment plants, five odor control injection sites and 61 lift stations. Wastewater entering the sanitary sewer system receives primary treatment at Sewage Treatment Plant #1 (constructed in 1931) and secondary treatment at Plant #2 (constructed in 1960). The City recently acquired the Sedgwick County Sewer District collection and treatment system,

including the Four Mile Creek facility. This addition will ensure more efficient and cost-effective sewer service for customers throughout the region. The Northwest Sewage Treatment Plant (Plant #3) is currently scheduled to open in late 2002. Following the opening of the new plant, a major upgrade and automation project will begin at Four Mile Creek. When completed, both Four Mile Creek and Plant #3 will be able to operate with very little human interaction due to the high degree of automation. Three employees are added in the budget for the operation and maintenance of Plant #3, one to supervise plant operations, and two positions for grounds maintenance.

The Sewer Utility was recently given a National Pre-treatment Excellence Award for its Industrial Pre-treatment Program. This award is given to pre-treatment programs that have achieved superior industrial compliance levels with wastewater discharge regulations and have implemented innovative mechanisms within the program. Some of the mechanisms used by the program include a comprehensive inspection program, a biological monitoring program, a combined storm water and industrial monitoring program, and participation in public education events like the Pre-treatment Workshop and Boeing Earth Day Fair.

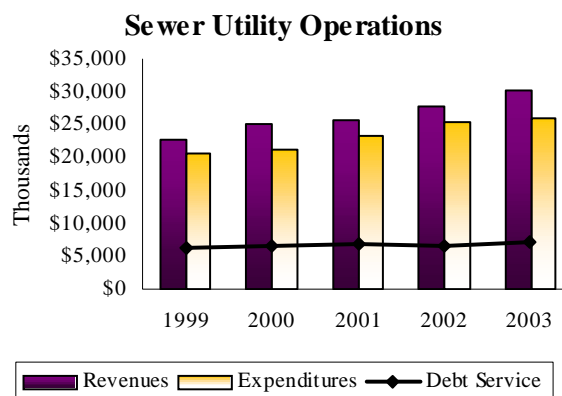
Sewer Maintenance Division staff are responsible for cleaning and maintaining approximately 1,450 miles of sanitary sewer laterals, mains, interceptors and manholes. The aim of this activity is to prevent tree roots and other intrusions from blocking or damaging the system and to minimize inflow and infiltration from other sources that increase the volume of sewage reaching the plants, increasing the overall cost of treatment. This preventive maintenance program increases Utility efficiency by addressing problems before they occur, thereby eliminating the need for more expensive maintenance or repair.

Utility operating budgets reflect additions for deferred vehicle replacements, debt service requirements, and projected increases in bad debt costs caused by delays in the configuration of the Utilities' new billing system. The Sewer Utility budget also reflects additional operations and maintenance costs associated with the Four Mile Creek facilities. In the Water Utility, continued allowances have been made in the budget to account for sales tax.



Combined Water & Sewer Financial Summary
\$ in Thousands

	2001	2002	2003
Water Sales Revenue	34,729	33,826	36,016
Sewer Sales Revenue	25,188	27,100	29,120
Interest	2,417	1,900	2,200
Revenue - All Sources	62,334	62,826	67,336



The Water and Sewer utilities are facing capital costs in the coming years for refurbishment of existing infrastructure, and expansion of infrastructure to accommodate urban growth. Debt service is the largest single variable affecting the rate structure of each utility. Rate change recommendations are now three percent annually in each utility, as shown in the accompanying table. Recommendations were revised downward twice: first in December 2001 from recommendations published in the 2001-2010 Capital Improvement Program (CIP); and now in this budget from the December 2001 recommendations.

Projects, such as the Water Supply Plan, construction of the Northwest Sewage Treatment Plant (Plant #3), and required improvements to the recently acquired Sedgwick County sewer system, represent sound utility planning to support long-term growth and development. Funding these projects, however, will result in short-term financial impacts in terms of urgency to increase rates. The City's utilities are facing an intergenerational equity issue with current utility customers bearing a disparate share of the costs associated with financing these major capital improvements that will also benefit future utility customers.

2001 and 2002 are peak years in the Water and Sewer Capital Improvement Programs. The Water Supply Plan, relocation of the Water Distribution facility, and construction of Sewage Treatment Plant #3 will require significant outlays from the utility funds. This leads to increased pressure on rates; however, reduced capital expenditures in 2004 and beyond indicate that the best course may be to delay some bonded debt issuance until CIP financing needs become more moderate in later years. This would require use of temporary notes as interim financing during and immediately following construction to maintain positive cash flow until bonds are issued.

The budget recommendation assumes an issuance of notes for both utilities in 2002 and 2003 to be renewed up to four years. After that time, regular 20-year revenue bonds could be issued per standard practice. Actual issuance date for the bonds and length of time notes are required will depend on a variety of factors including market conditions and progress with the capital projects.

Any future rate changes will be subject to review and approval by the City Council.

Because of sound fiscal management and planning for future capacity and financing needs, the Water and Sewer Utilities are in a sound financial position. This leads to a higher bond rating given by financial institutions evaluating utility bonds. A higher bond rating reduces overall debt service costs by reducing the interest rate at which debt can be issued in any given year. Part of this financial strategy involves partial

**Annual Water & Sewer Rate Increases
Projected for 2002-2004**

	2001	2002	2003	2004
Water Rate Increases	3%	3%	3%	3%
Sewer Rate Increases	4%	3%	3%	3%

**Bonded Debt Service Coverage Ratio
(must equal or exceed 120%)**

	2001	2002	2003	2004
Water Coverage Ratio	233%	206%	193%	195%
Sewer Coverage Ratio	187%	162%	165%	174%

**2002 Water Rate Structure
Cost per thousand gallons**

	Inside-City Rate	Outside-City Rate
Block 1 (0-110% AWC)	\$0.67	\$1.04
Block 2 (111-310% AWC)	\$2.41	\$3.76
Block 3 (above 310% AWC)	\$3.63	\$5.66

financing of capital improvements through cash reserves, which further reduces the cost of improvements by eliminating bond issuance and interest costs.

Revenue bond covenants require that after operating and maintenance expenses, net annual revenues must equal at least 120 percent of the annual debt service payments for principal and interest. This is the bonded debt coverage ratio. A higher ratio provides a cushion against fluctuations in utility revenues, which can be significant given the impact of weather changes on utility revenues. Bond rating agencies and the bond market typically rate utilities as superior if the bond coverage ratio is relatively high.

Water rates are based on a customer's average winter consumption (AWC), which is defined as the mean monthly consumption calculated during the months of December, January, February and March. The AWC is calculated in April and is used as the basis for billings in the following twelve months. The minimum monthly AWC for any metered service on a meter sized at one inch or less is 6,000 gallons. In addition, a minimum monthly charge is assessed for all customers regardless of consumption. The water rate increases as consumption moves up from one block to the next. The AWC rate structure is designed to encourage conservation by imposing a penalty on excessive water usage.

Highlights

- ✓ Projected future rate increases are reduced to 3 percent annually in each Utility. The use of temporary note financing to spread out bonded debt issuance is the primary reason for the lower projection.
- ✓ A Call Center is included in the budget to streamline public contact with the Water Utility.
- ✓ The operational phase of the Aquifer Storage and Recovery (ASR) project is included in the budget beginning in 2003.
- ✓ The new Northwest Sewage Treatment Plant (STP #3) is scheduled to open in late 2002. Staff to operate and maintain the new facility is included in the budget.
- ✓ The Department administration is reorganized with a new Assistant Director overseeing the System Planning and Development, Water Distribution, and Sewer Maintenance functions.

Water Utility Fund Budget Summary

	2001 Actual	2002 Adopted	2002 Revised	2003 Adopted	2004 Approved
Water Fund Revenue	36,594,902	35,399,940	34,926,110	37,216,110	39,107,120
Personal Services	6,647,580	7,695,920	6,593,420	7,155,550	7,483,000
Contractual Services	6,322,171	6,498,970	6,076,490	6,561,680	6,285,200
Commodities	2,034,315	2,704,300	2,049,080	2,173,410	2,221,440
Capital Outlay	3,099,851	566,930	2,986,440	2,979,850	3,033,880
Other	12,416,211	17,230,720	15,554,100	16,440,630	17,128,740
Total Water Fund Expenditures	30,520,128	34,696,840	33,259,530	35,311,120	36,152,260
Revenue Over (Under) Expenditures	6,074,774	703,100	1,666,580	1,904,990	2,954,860
Transfer to Reserves	6,074,774	703,100	1,666,580	1,904,990	2,954,860
Total full-time positions	180	182	182	184	184
Total part-time positions	37	37	37	36	36
Total FTE positions	203.75	204.75	205.75	207.00	207.00

*Making a difference....
with clean and safe water.*

Sewer Utility Fund Budget Summary

	2001 Actual	2002 Adopted	2002 Revised	2003 Adopted	2004 Approved
Sewer Fund Revenue	25,739,398	30,081,000	27,900,000	30,120,000	30,910,000
Personal Services	7,353,115	8,271,270	7,877,230	8,448,190	8,815,630
Contractual Services	3,624,550	4,587,570	5,201,390	4,720,380	4,770,110
Commodities	2,120,890	2,065,840	2,180,490	2,312,840	2,380,290
Capital Outlay	1,264,631	1,099,950	1,228,750	1,107,990	809,710
Other	8,938,973	13,699,440	8,800,810	9,511,410	9,810,240
Total Sewer Fund Expenditures	23,302,159	29,724,070	25,288,670	26,100,810	26,585,980
Revenue Over (Under) Expenditures	2,437,239	356,930	2,611,330	4,019,190	4,324,020
Transfer to Reserves	2,437,239	356,930	2,611,330	4,019,190	4,324,020
Total full-time positions	150	150	151	155	155
Total part-time positions	1	2	2	2	2
Total FTE positions	150.50	151.00	152.00	156.00	156.00